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Knowledge, attitude and willingness of nursing students towards HIV/AIDS patient care: A descriptive study

Tulsa Sunar

ABSTRACT

Acquired Immunodeficiency Syndrome (AIDS) is caused by exposure to the Human Immunodeficiency Virus (HIV), which progressively deteriorates and dysfunctions the cell-mediated immunity. The stigma and discrimination surrounding HIV/AIDS can hinder patients' access to treatment and other rights, discouraging infected individuals from seeking health and social services. This study aimed to assess the level of knowledge, attitude and willingness of PCL nursing students regarding HIV/AIDS patient care. A descriptive study was conducted among female PCL nursing students at Nepalgunj Nursing Campus TU IOM, Banke. A simple random sampling technique was used to select 54 respondents out of 136 students. Data was collected through a self-administered semi-structured questionnaire and analyzed using descriptive statistics like frequency, percentage, mean and standard deviation. The study found that 63% of the respondents had good knowledge, while only 18.5% had poor knowledge about HIV/AIDS patient care. Moreover, 85.2% of the respondents had a positive attitude towards caring for HIV/AIDS patients, while only 14.8% had a negative attitude. Most of the respondents (88.9%) were willing to take care of patients with HIV/AIDS. Similarly, 96.3% of the participants were willing to accept the responsibility of HIV/AIDS patient care and 63% of the respondents were still willing to provide care even after exposure to HIV-infected body fluids. The study reveals that PCL nursing students have a good level of knowledge, positive attitude and willingness towards HIV/AIDS patient care. This finding is encouraging for improving patient care and reducing stigma and discrimination against people living with HIV/AIDS. However, more efforts are required to increase knowledge and awareness about HIV/AIDS among nursing students to provide quality care for patients.

Keywords: HIV/AIDS, Patient Care, Nursing students, Knowledge, Attitude

1. INTRODUCTION

HIV infection was the first step in the development of AIDS (acquired immune deficiency syndrome). A person with HIV infection can experience increasing decline and malfunction in cell-mediated immunity, with the disease's most

severe stage being AIDS (Park, 2013). The human immune system is infected by the retrovirus known as HIV, which may be spread by blood, semen, vaginal secretions and breast milk. Unprotected sexual contact, contaminated blood transfusion, sharing of needles and contact between a mother and child during pregnancy, delivery and nursing are high-risk behaviors that might result in HIV transmission (Lundgren and Olausson, 2013). Although HIV and AIDS are fatal conditions, there are medical interventions, such as antiretroviral medicines, that can extend a person's life, even lower the level of HIV in the blood and help the immune system return to normal.

Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome, also known as HIV/AIDS, continues to be a serious global public health concern. According to the World Health Organization (WHO), only 21.7 million individuals worldwide have access to antiretroviral medication, while there are an estimated 36.9 million people living with HIV. According to Park, (2013), HIV, a retrovirus that causes AIDS, weakens the immune system of the body, making the patient susceptible to a variety of neurologic illnesses, atypical cancers and other life-threatening opportunistic infections.

In the Asia and Pacific area, there are 5.2 million individuals living with HIV, which causes around 170000 deaths each year, per regional data from 2017. However, according to UNAIDS, (2018), just 2.7 million individuals have access to the medication. Estimates from the national HIV program place the number of HIV-positive individuals in Nepal at 31,020. Males outnumber females among them (19,020 to 12,000) (NCASC, 2017). According to one of the studies done among 325 nursing students in Turkey, nursing students have unfavorable attitudes toward people with HIV/AIDS, which leads researchers to draw the conclusion that more education is needed to promote nonjudgmental and compassionate care for patients with HIV/AIDS.

A subset of healthcare professionals, student nurses are the futures licensed nurses. As a result of their involvement in the delivery of direct bed side nursing care to patients with HIV/AIDS, student nurses are more susceptible to contracting a blood-borne illness. It is true that health care providers and student nurses have a dread of caring for HIV-positive patients and have a negative attitude about doing so. Nevertheless, nurses are essential in the delivery of HIV care and treatment (Sehume et al., 2012).

Negative attitudes toward patients with HIV/AIDS can compromise the standard of nursing care and stress both nurses and patients on an equal basis. It is thought that focusing nursing education on HIV/AIDS-related skills and knowledge might help nurses provide better patient care and provide better medical results. This study's goal is to learn more about nursing students' attitudes and willingness since they are crucial to the treatment of HIV/AIDS patients.

Objectives of the Study

- To evaluate nursing students' knowledge, attitudes and readiness to care for people with HIV/AIDS;
- To determine nursing students at the PCL level's level of understanding;
- To gauge nursing students' views on treating patients with HIV/AIDS;
- To measure nursing students' interest in providing care for people with HIV/AIDS.

Research Questions

What are the knowledge, attitude and willingness of nursing student towards caring of HIV/AIDS patient?

Variables

Dependent Variable

Knowledge, attitude and willingness regarding care of HIV/AIDS patient

Independent Variables

Socio- demographic variables: Residence: Rural, urban, Academic years

Information/Education/Communication related variables: Friends, Mass media (Television, radio, Internet, Books/Magazines), Formal course

Literature Review

Examining nursing students' knowledge, attitudes and desire to care for people with HIV/AIDS is the research's main goal. Numerous studies have revealed that nursing students are afraid of and have unfavorable views about those who are HIV/AIDS positive. These have been connected to a lack of awareness of the infection, the stigma associated with the illness and a fear of contracting the disease; as a result, they may be reluctant to offer care to HIV/AIDS patients. It is crucial to improve the knowledge

and theoretical courses offered in nursing schools so that students are better prepared to treat and care for patients with illnesses like HIV/AIDS, which have high rates of infection and death, equally and fairly.

In 2017, there were 36.9 million HIV-positive individuals worldwide, including 1.8 million children under the age of 15, 18.2 million women and 1.8 million new HIV infections. The number of new HIV infections is rising in almost 50 nations. In 2017, critical groups (men who have sex with men, individuals who inject drugs, sex workers and transgender persons) and their sexual partners accounted for around 47% of new HIV infections worldwide. According to previous study AIDS-related diseases continue to be the world's biggest cause of mortality for women between the ages of 15 and 49.

The study conducted among 122 nursing students in South Africa, a self-administered questionnaire was used to assess their attitudes and willingness towards caring for HIV-infected patients. Results showed that while a majority displayed positive attitudes towards isolating HIV-infected patients and not blaming them for their condition, most showed negative attitudes towards having an institutional policy to enforce HIV testing and wearing protective gear. Almost all participants expressed willingness to nurse an HIV-positive patient, but a significant number were not comfortable doing so (Sehume et al., 2012). The study conducted among 922 Jordanian nurses using a self-administered questionnaire, results showed that most nurses expressed negative attitudes towards patients with HIV/AIDS, with a significant majority refusing to provide care to HIV-positive patients. Fear of contracting the disease was also overwhelming among the participants (Hassan and Wahsheh, 2011).

The study conducted among 186 undergraduate nursing students in Bangalore, South India, using questionnaires, results showed that a majority of participants had favorable attitudes towards caring for people living with HIV/AIDS. Most agreed that health workers have a duty to treat all patients irrespective of their status and that patients with AIDS have the right to receive care as other diseases. However, a significant proportion disagreed with isolating AIDS patients from other patients, and the overall attitudes mean score suggested moderately favorable attitudes towards persons with HIV/AIDS (Dharmalingam et al., 2015).

Three cross-sectional studies were conducted to assess the knowledge, attitudes and behaviors of healthcare professionals towards people living with HIV/AIDS. The first study conducted in Malaysia showed that the majority of the respondents had a moderately positive attitude towards PLHIV and were supportive of their rights and the establishment of voluntary organizations. However, attitudes towards direct contact and interaction with PLHIV were not as favorable. The second study conducted in Greece showed that a significant proportion of student nurses were willing to provide care for PLHIV, but a minority agreed with discriminatory attitudes such as people with HIV should stay home or in the hospital. The third study conducted in Turkey showed that nursing students had negative attitudes towards PLHIV, with a significant proportion feeling that working with AIDS patients put them at high risk and preferring not to work with them if given a choice. The studies highlight the need for education and training to address negative attitudes towards PLHIV among healthcare professionals.

Three studies were conducted to assess nurses' knowledge, attitudes and practices towards HIV/AIDS. The first study found that rural South African nurses had mainly positive attitudes towards patients with HIV/AIDS and practiced universal precautions, but fear of occupational HIV transmission and lack of injection safety were found (Delobella et al., 2009). The next study found that nurses with higher HIV/AIDS knowledge scores held more positive attitudes, had a lower perceived risk of HIV/AIDS infection, and a higher willingness to care for HIV/AIDS-positive patients (Wu et al., 2014). The newer study revealed that nursing students from Finland, Estonia and Lithuania demonstrated average attitude scores towards patients with HIV/AIDS, with Finnish nursing students showing the most positive attitudes. Willingness to provide care for an HIV/AIDS patient was associated with a positive attitude towards these patients (Suominen et al., 2009).

A variety of studies on nursing students' knowledge, attitudes, and willingness to care for HIV/AIDS patients in various settings and countries were evaluated. These writings revealed both good and negative views toward treating HIV/AIDS patients, as well as a lack of knowledge and expertise, as well as concerns about the spread of the disease. A study of the literature found a correlation between several demographic factors and attitudes score. According to the literature mentioned above, several research investigations were carried out in various nations; however, Nepal did not have any noteworthy studies. The knowledge, attitudes and willingness of nursing students to care for HIV/AIDS patients must thus be investigated.

2. RESEARCH METHODOLOGY

Research Design

A descriptive cross-sectional research design based on quantitative approach was used to assess knowledge, Attitudes and Willingness of nursing students towards caring for HIV/AIDS patients.

Research Setting and Population

The area of study was Nepalgunj Nursing Campus, which was established in 1993 AD, located at Jail road-10 Nepalgunj, Banke. The college of nursing is currently running Proficiency Certificate Level Nursing and Bachelor of Nursing Science Program. The study population was all nursing students of PCL nursing (136). The Study was conducted in December, 2022.

Sample Procedure

Although setting was selected conveniently then, probability simple random sampling technique was used through lottery method.

Inclusion Criteria

Students who had willingness to participate in this study;
Students who were available during the period of data collection;
Students who were studying in PCL nursing at the Nepalgunj Nursing campus;

Research Instrumentation

The research instrument consists of self-administered semi structured questionnaire which was developed on the basis research objectives and in-depth literature review through guidance of advisor. The research instrument was designed in English version. The tool was divided into four parts:

Part I: Includes the questions related to Socio-Demographic information.

Part II: This section consists of semi-structured questionnaire to assess the knowledge of HIV/AIDS.

Part III: Includes five-point Likert scale to measure attitude of nursing students of towards caring for HIV/AIDS patients.

Part IV: Include statements related to willingness towards caring for HIV/AIDS patients.

Validity and Reliability

Validity of the instruments will be maintained through consultation and verification with the research guide, subject experts, colleagues and extensive literature review.

Pre-testing the instrument

Pretesting of the instrument was done in the Bheri Nursing Campus. The developed instrument was pretested among 10% of the anticipated sample. That was among 6 respondents. Then necessary change was made according to the findings and responses.

Data Collection Procedure

The formal written approval letter was taken from administration of Nepalgunj Nursing Campus for conducting research and data collection. The purpose of the study was explained to each of the respondents. The Written informed consent was taken from each respondent prior to data collection. Self-administered semi-structured questionnaire was distributed to nursing student at their break time. After completion, collected data was checked for completeness and was filled on the spot immediately. Data was collected within 2 weeks.

Data Analysis Procedure

Collected data was checked, reviewed and organized daily for its completeness and accuracy. Collected information was edited, coded, categorized and entered into SPSS (Statistical package for social science) version 21. Data was analyzed by using descriptive statistics like frequency, percentage, mean and median & standard deviation. Findings were presented in tabular form.

3. RESULTS

This study deals with the analysis and interpretation of relevant data to answer the specific questions of the study concerning knowledge, attitude and willingness of nursing student regarding HIV/AIDS patient care among PCL nursing student of Nepalgunj Nursing campus, Nepalgunj TU, IOM Banke District. The data were coded- tabulated- organized by using statistical package for social science (SPSS) version 21 using descriptive statistical measures such as number and percent, mean, standard deviation methods.

Table 1 Respondents' socio-demographic data n=54

Variables	Frequency (F)	Percentage (%)
Academic Year		
First Year	22	40.7
Second Year	15	27.8
Third Year Residence	17	31.5
Urban	51	94.4
Rural	3	5.8

Table 1 illustrates, less than half (40.7%) of respondents were first year PCL nursing students, few (27.8%) of respondents were PCL nursing second year students and nearly one third (31.5%) were PCL nursing 3rd year student was involved. Majority (94.4%) of respondent was belonging to urban area and only few (5.8%) respondents were belonging to rural area.

Table 2 Respondent's knowledge regarding nursing care of HIV/aids patients Full form of AIDS n =54

Variables	Frequency (F)	Percentage (%)
Correct	52	96.3
Incorrect	2	3.7
It is life threatening disease	37	68.5
It is preventable disease	20	37.5
It is contagious disease	29	53.7
It is fatal disease	27	50.0
Risk group **		
Commercial sex worker	46	85.2
Drugs abuser	39	72.2
Multiple sex partner	48	88.9
Homosexual	22	42.7

AIDS means**

Multiple response **

Table 2 shows majority (96.3%) of respondents answered the full form of AIDS, mostly (68.5%) answered that AIDS is life threatening disease, likewise more than one third (37.5%) of respondents answered AIDS as fatal disease, majority (88.9%) of respondents respond that commercial sex worker might be suffering from AIDS and less than half (42.7%) of the respondents answered homosexual might be suffering from AIDS.

Table 3 Respondent's knowledge regarding nursing care of HIV/AIDS patient n=54

Variables	Frequency (F)	Percentage (%)
Causes of AIDS		
Retro virus *	51	94.4
Rota virus	3	5.6
Full form of HIV		
Correct	48	88.9
Incorrect	6	11.1
Mode of transmission**		
Unprotected sexual contact	49	90.7
Use of contaminated needle and syringe	45	83.3
Use of contaminated blood and blood product	46	85.2
Infected mother to child	42	77.8

Multiple response **

Correct response*

Table 3 illustrates majority (94.4%) of respondent answered retro virus is cause of AIDS and few (5.6%) respondents answered Rota virus is cause of AIDS. Majority (90.7%) of the respondent respond full form of HIV, majority (90.7%) respondent answered AIDS transmitted through unprotected sexual contact, Likewise, mostly (77.8%) respondent answered AIDS transmit through infected mother to child.

Table 4 Respondent's knowledge regarding nursing care of HIV/AIDS patient n=54

Variables	Frequency (F)	Percentage (%)
AIDS Cannot transmit through**		
Hugging	49	90.0
Use of common toilet and swimming pool	47	87.0
Touching	51	94.4
Use of personal belonging like cloths, cups, brush, comb	43	79.6
Bites of mosquito, insect, birds, and animals	37	68.5
Window period means		
Time period between potential exposure to infection and point when the test gives an accurate result *	27	50.0
Period between detection of infection and onset of the symptoms	27	50.0

Multiple response ** Correct response *

Table 4 reveals majority (94.4%) of the respondents answered that AIDS cannot transmitted through touching and mostly (68.5%) of the respondents answered AIDS cannot transmit through bites of insect, birds and animal. Similarly, half (50%) of the respondent knew meaning of window period.

Table 5 Respondent's knowledge regarding nursing care of HIV/AIDS patient n=54

Variables	Frequency (F)	Percentage (%)
2 to 4 weeks	6	11.1
6 to 12 weeks *	27	50.0
12 to 16 weeks	6	11.1
16 to 20 weeks	15	27.8
Duration of window period		
Does infection transmit during window period?		
Yes	28	51.9
No	26	48.1
Symptoms of AIDS**		
Weight loss more than 10% of body weight	43	79.6
Chronic diarrhea more than 1 month	46	85.2
Prolonged fever more than 1 month	36	66.7
Prolonged cough for more than 1 month	28	51.9
Prolonged swelling of the lymph node	28	51.9

Table 5 evaluates half (50%) of respondents answered about duration of window period of HIV/AIDS. More than half (51.9%) of the respondent knew that HIV/AIDS infection transmitted during window period. Majority (85.2%) of the respondents knew chronic diarrhea more than 1 month is the symptoms of AIDS, similarly more than half (51.9%) of respondents knew prolonged cough and swelling of lymph node was also symptoms of HIV/AIDS.

Table 6 Respondent's knowledge regarding nursing care of HIV/AIDS patient n=54

Variables	Frequency (F)	Percentage (%)
Full form of PMTCT		
Correct	47	87.0
Incorrect	7	13.0
Confirmation test of HIV/AIDS		
ELISA test	42	77.0
Western blot test *	8	14.8
Widle test	4	7.4
Preventive measure of HIV/AIDS**		
Use of condom	50	92.6
Avoid sharing needle or syringe	44	81.5
Avoid mother to child transmission	41	75.9
Use sterilizes needle or syringe	41	75.9
Limit sexual partner	39	72.2
Get test and know your partner HIV status	41	75.9
Get test and treat for sexual transmitted disease	34	63.0
Use post exposure prophylaxis	31	57.4

Table 6 shows Majority (87%) of the respondents answered full form of PMTCT. Likewise, most of the (77%) of respondents answered ELISA was confirmation test of AIDS. Majority (92.6%) of respondents answered use of condom was preventive measure of HIV/AIDS, whereas more than half (57.4%) respondents knew use of post exposure prophylaxis was preventive measures.

Table 7 Respondent's knowledge regarding nursing care of HIV/AIDS patient n= 54

Variables	Frequency (F)	Percentage (%)
Available of drug for treatment of HIV/AIDS		
Yes	34	63.0
No	20	37.0
Full form of ART		
Correct	39	72.2
Incorrect	15	27.8
Time to start PEEP after possible exposure to HIV		
Within 3 days*	31	57.4
Within 4 days	9	16.7
Within 5 days	12	22.2
Within 6 days	2	3.7

Correct Response*

Table 7 illustrates nearly two third (63%) of respondents respond that drugs are available for treatment of HIV/AIDS and mostly (72.2%) respondents answered full form of ART. More than half (57.4%) respondents answered post exposure prophylaxis should be start within 3 day of possible exposure and few (3.7%) of the respondent answered PEEP should be start within 6 days.

Table 8 reveals majority (81.5%) respondents replied explanation of the result and diagnosis should be included while counseling the HIV/AIDS infected person, more than one third (35%) of the respondent answered assessment of risk of suicide, depression should be included. Overall (100%) of respondents answered universal precaution should be applied while providing nursing care.

Table 8 Respondent's knowledge regarding nursing care of HIV/AIDS patient n= 54

Variables	Frequency (F)	Percentage (%)
Counseling to HIV/AIDS infected person includes**		
Explanation of the result and diagnosis	44	81.5
Give time to considered the result and helping his/her to cope with the emotions	42	77.8
Assessment of the risk of the suicide, depression	35	64.8
Provide clear information about ART	41	75.9
Provide information on how to prevent transmission	43	79.6
Assess the nutritional status and advice to maintain healthy weight	39	72.2
Application of universal precaution while providing nursing care		
Yes	54	100
Bed side care to HIV/AIDS patient**		
Assess sign of infection	43	79.6
Encourage for high protein and carbohydrate diet	32	59.3
Maintain aseptic technique while performing invasive procedure	50	92.6
Maintain fluid intake at least 3lt/day	29	53.7
Monitor and report promptly side effect of ART	41	75.9

Multiple Response ** Correct Response*

Table 9 Respondent's source of information about HIV/AIDS n = 54

Variables	Frequency (F)	Percentage (%)
Source of information		
Radio	36	64.8
Television	38	74.6
Books/magazines	46	85.2
Internet	46	85.2
Friends	39	72.2
Formal course	37	68.5

Table 9 depicts majority (85.2%) of respondents got information about HIV/AIDS through internet, books/ magazines, similarly, nearly two third (64.8%) of respondents got information about HIV/AIDS through radio.

Table 10 Respondent's attitude towards caring for HIV/AIDS patients n=54

Statements	Strongly Agree	Agree	Uncertain	Disagree	Strongly disagree
F (%)		F (%)	F (%)	F (%)	F (%)
Patients with HIV/AIDS are responsible for illness	4(7.4)	12 (22.2)	27(50)	6(11.1)	5(9.3)
Patient with HIV/AIDS	1(1.9)	1(1.9)	2(3.7)	21(38.9)	29(53.7)
Deserve punishment for their risky behaviour**					
Patient with HIV/AIDS should not be admitted to hospital**	-	-	2(3.7)	9(16.6)	43(79.6)
HIV infected patient should Allow to school or work	31(57.4)	17(31.5)	1(1.9)	1(1.9)	-
Treating someone with HIV/ AIDS is waste of resource**	2(3.7)	4(7.4)	-	14(25.9)	34(63)

Negative Statement**

Table 10 shows half (50%) respondents uncertain about patient with HIV/AIDS are responsible for their illness whereas few (7.4%) respondents strongly agree with it. More than half (53.7%) respondents strongly disagree with infected patients deserve punishment for their risky behavior. Similarly, most of the (79.6%) respondents strongly disagree that patient with HIV/AIDS should not be admitted to hospital whereas few (3.7%) respondents uncertain about it. More than half (57.4%) respondents strongly agree that HIV infected patient should allow for school or work and few (1.9%) respondents uncertain and disagree with it. Similarly, nearly two third (63%) respondents strongly disagree with that treating someone with HIV/AIDS is a waste of resources whereas few (3.7%) strongly agree with it.

Table 11 Respondent's level of knowledge regarding HIV/AIDS patient care n= 54

Level of knowledge	Frequency (F)	Percentage (%)
Good knowledge (>75%)	34	63.0
Satisfactory knowledge (50-75%)	10	18.5
Poor knowledge (<50%)	10	18.5
Mean \pm SD = 39.22 \pm 11.52		

Table 11 depicts scoring level of respondent's knowledge. Nearly two third (63%) of respondent had good knowledge and only few (18.5%) respondents had satisfactory and poor knowledge as well. The mean score of knowledge level was 39.22 and standard deviation was \pm 11.52.

Table 12 Respondent's level of attitude towards caring for HIV/AIDS patient n= 54

Level of attitude	Frequency (F)	Percentage (%)
Positive attitude	46	85.2
Negative attitude	8	14.8
Mean \pm SD = 3.78 \pm .795		

Table 12 reveals level of attitude. Majority (85.2%) of respondents had positive attitude towards caring of HIV/AIDS patient and only (14.8%) had negative attitude. The mean score of attitudes was 3.78 and standard deviation was \pm .795.

Table 13 Respondent's willingness towards caring for HIV/AIDS patient n=54

Statements	Frequency (F)	Percentage (%)
I am willing to take care of patient with HIV/AIDS	48	88.9
I accept the responsibility of caring patient with HIV/AIDS	52	96.3
After accidental exposure, I would still be willing to take care of HIV infected patients	34	63.0

Table 13 reveals majority (88.9%) of respondents were willing to take care of patient with HIV/AIDS. Similarly, majority (96.3%) of the participants were willing to accept the responsibility of HIV/AIDS patient care. Likewise, nearly two third (63%) respondents were still willing to provide care even after exposure to HIV infected body fluids.

4. DISCUSSION

In this study 54 respondents were selected where less than half (40.7%) of respondents were first year PCL nursing students, (27.8%) of respondents were PCL nursing second year students and one third (31.5%) of respondents were PCL nursing 3rd year student was involved. Similarly, the study conducted by Adhikari et al., (2015) shows more than one third (33.63%) of respondent were the students of first year, one third (30.97%) of respondents were of second year and more than one third (35.40%) were of the third year PLC nursing student.

The findings of the study shows that Majority (94.4%) of the respondent was belong to urban area and only few (5.8%) of respondents were belonging to rural area. In contrast the study conducted in 2012 revealed majority (89.26%) of respondents

belongs to rural area. This study revealed that majority (96.3%) of respondents answered the full form of AIDS. Whereas the study conducted in 2012 all of the respondents respond the full form of AIDS.

The findings of this study showed majority (88.9%) of respondents answered commercial sex worker might be suffer from AIDS. Similarly, the study conducted in 2018 majority (97%) of respondent had known that commercial sex worker might be suffering from AIDS. In this study majority (94.4%) of respondent answered retro virus is cause of AIDS. Whereas. The study conducted in 2018 majority (78.42%) had known the cause of AIDS. This study revealed that majority (88.9%) of respondents answered full form of HIV. Similarly, the study conducted in 2018 majority (83.52%) had known the full form of HIV.

The findings of study revealed majority (90.7%) of respondent answered AIDS transmitted through unprotected sexual contact. Likewise, the study conducted in 2018 majority (95.3%) students had knowledge that the unprotected sexual contact is as a mode of HIV transmission. In this study 68.5% of respondent respond that AIDS cannot transmit through bites of mosquito, insect, birds and animals. Whereas study conducted in 2018 about 64% students have knowledge that HIV cannot be transmitted by mosquito bite.

This study revealed that majority (92.6%) of respondents answered use of condom is the preventive measures of HIV/AIDS. Similarly, the study conducted by Suominen et al., (2015) majority (86%) students have knowledge that consistent use of condoms may reduce transmission of HIV. In this study majority (85.2%) of respondents got information about HIV/AIDS through books and magazine. In contrast the study conducted in 2018 35% of student got information about AIDS through books and magazine.

The findings in this study revealed that mostly (63%) of the respondents had good knowledge regarding caring of HIV/AIDS patient. Only 18.5% of the respondents had satisfactory and poor knowledge as well. Similarly, a study conducted in National Medical College and Teaching Hospital, Birgunj, Nepal revealed nearly half of the nursing students had good knowledge followed by moderate knowledge 33.00% whereas, 17.00% of the respondents had poor knowledge on caring of HIV/ AIDS patient (Adhikari et al., 2015).

But the study conducted in capital city of Turkey, revealed that the majority of nursing students have a moderate level of knowledge regarding caring of HIV/AIDS patient. A study conducted in Russian nursing student reveals that 72.4% of the respondents had moderate level of knowledge regarding HIV/AIDS patient care (Suominen et al., 2015). The findings in this study revealed that, majority 85.2% of the respondents had positive attitude towards caring of HIV/AIDS patient and only 14.8% had negative attitude. Similarly, a study conducted in South Africa among 122 nursing students showed that about two-third 66.4% of the participants displayed positive attitudes. Similarly, study conducted in University of Nigeria Teaching Hospital Enugu 2017, 94.6% of the respondents had positive attitude towards the care of PLWHA.

In contrast study conducted in HP Government College and Hospital, Shimla, India among 191 nursing students find that 65.6% respondents had negative attitudes towards caring of HIV/AIDS patient (Fotedar et al., 2013). Likewise, a study conducted in National Medical College and Teaching Hospital, Birgunj, shows 59.20% of the respondents had negative attitude towards caring of patient with HIV/AIDS.

The findings in this study revealed majority 88.9% of the respondents were willing to take care of patient with HIV/AIDS. Similarly, majority 96.3% of the participants were willing to accept the responsibility of HIV/AIDS patient care likewise 63% respondents were still willing to provide care even after exposure to HIV infected body fluids.

According to Sehume et al., (2012) showed almost all the nursing students 99.2% showed willingness to nurse a patient who is HIV-positive, mostly 74.6% of the respondents showed willingness to continue caring for HIV-infected patients despite being accidentally exposed to the HIV-infected body fluids. Similarly, a study conducted among the students of the University of Pune, Maharashtra, India, 2013, majority 78.89% of the respondents were willingness to care of HIV positive person. A study conducted in Greek among 279 students reveled that nearly half 43.7% of the participants were willing to do volunteer work with AIDS patients.

5. CONCLUSION

It is concluded that nursing students had good knowledge in various aspects of HIV/AIDS. Majority of the respondents had good knowledge. Majority of them had positive attitudes towards HIV-infected patients and were willing to take care of HIV/AIDS patient care.

Informed consent

Not applicable.

Ethical approval

The ethical guidelines for human subjects are followed in the study.

Conflicts of interests

The authors declare that there are no conflicts of interests.

Funding

The study has not received any external funding.

Data and materials availability

All data associated with this study are present in the paper.

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